



DON MYERS

OHIO VALLEY AMIGA USERS' GROUP

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NEXT MEETING: MAY, 25th
Rm 502 RIEVESCHL HALL,
UC || BEGINNER'S AT 6:30

The President's Prattle

Ed Hoffmann

It's a busy time for Amiga enthusiasts and especially OVAUG members. While this time of year mean cutting the grass, cleaning out the garage, and spending time outside in the sun, there is a lot happening behind the keyboards, as well. First of all, The 3D Graphics SIG had its first meeting, proving to be a success with 15 members showing up and still others interested. I think the interest in this SIG shows the current direction of the Amiga market, towards creative, real-life pursuits. All members are invited, and while not intended to be a tutoring session, a lot of learning takes place.

Also, ComputerFest is closer than you think. I will be putting together a self-running AmigaVision demo that exploits the advantages of the Amiga, and shows off it's unique characteristics. I am also arranging to get the A1200 and A4000 from Commodore. However, I need lots of help from members to make this show a success. Therefore, I will be asking for volunteers for the following tasks: 1) Making up signs and posters for each of the Amiga stations; 2) collecting the best songs (mod files), animations, and stills on the Amiga; 3) creating looping animations, with DPaint, 3D programs, VistaPro or whatever; 4) bringing a Toaster setup with at least one video camera to demo the Toaster and its capabilities, involving the attendees as much as possible; and 5) be at the show to hand out flyers, talk to passers by, and rave about the Amiga. Please feel free to call me or talk to me at the meetings to volunteer for this effort; the more volunteers, the less any one individual has to do!

There are also some interesting rumblings coming from Commodore. While they have dismissed some employees, they have announced marketing arrangements for the Amiga 4000 together with NewTek and the Toaster 4000. Also, the stock price has hit a 52 week low, with murmurs of many big new developments from Commodore. While typical of Commodore as a way of doing business, I can't stop thinking that this will be an interesting year for Commodore, as well as the microcomputer business in general. That doesn't have anything to do with us having our fun with our Amigas right now, but it's always fun to watch the emanations from West Chester.

Finally, pricing on software and hardware in the Amiga market (especially accelerator boards, hard drives, and favorite software titles) has declined significantly, due to a variety of reasons. Due to the popularity of the AGA machines, some software and hardware manufacturers have had to lower prices to match the value of these new machines. Also, new releases have put pressure on distributors of existing titles to lower prices. In addition, the generally excellent sales in the entire microcomputer market (together with the increased capacity machines being sold) has resulted in lower prices for RAM chips, large hard drives, and printers. All of this is great news for the user community, as upgrading has never been so easy or cheap. Of course, this means that there are a lot more decisions to be made, but better too many choices than none at all.

I hope to see all of you at the next meeting, as we plan on demonstrating some great Amiga hardware, and maybe even a game or two. In addition, the Beginners SIG will continue with part two of our three part (at least!) introduction to the Amiga, so there should be something for everyone. See you there!

MAKING OPUS RUN REXX

by Jeff Johnson

Having had NO LUCK enticing Directory Opus (I have Version 3.41) to run ARexx scripts, the author asked club members attending the 3D SIG "How is it done??" . I was pleased to receive an answer from Gary Girdler. He was absolutely correct! Thank you Gary!!

The trick is to select the "No filename quote" option in Opus Configuration. Opus by default places quotes around filenames. This is to ensure correct functioning if filenames happen to have spaces (not good practice, but allowed). Well, ARexx doesn't like that, so selecting "No filename quote" keeps ARexx happy.

I subsequently set up Opus to work with an "*.rexx" file type, and also with a REXX gadget. Here is a tutorial. It is assumed you are familiar with setting Opus configuration.

GADGET:

- > Enter the GADGET section of CONFIGURATION
- > Click on an unused gadget
- > Set "Gadget name" to "ARexx"
- > Set "Function" to "rx {o}"
- > Set "Executable Batch ARexx" toggle to "Executable" (!!!)
- > Select "CD source"
- > Select "Output window"
- > Select "No filename quote"
- > Set other parameters to your preference

This makes a button or "Gadget" run a selected file as an ARexx script.

FILETYPE:

- > Enter "File types" section of CONFIGURATION
- > Select "Add"
- > Select "Double click" Function type
- > Enter File type "ARexx script"
- > Enter File pattern "*.rexx"
- > Enter Call function "C:RX {f}" (or use your path to RX)
- > Select "Output window"
- > Select "No filename quote"
- > Set other parameters to your preference

This makes a double click of a file with a filename ending in ".rexx" to be run as an ARexx script.

OPUS NOTE: If Opus opens a window and attempts to run an executable program, ARexx script, etc., and something goes wrong, the window will remain open with a DOS prompt displayed. And there it sits. This is especially problematic if "Asynchronous" was not selected. Opus is now stuck, just as if "run" was not used in a shell. What to do?

First, type "ENDCLI <return> ", to close the window. You will be back in OPUS (if not, click on the Opus window), but the sleepy pointer (the "wait -n-watch") will just sit and tick. NOW WHAT TO DO?? Hit <shift> ESC. This is documented deep in the instruction book, very deep, on page 75 of my version in the "Launching External Programs" chapter.

Minutes of the April 27, 1993 O.V.A.U.G. Meeting

The meeting was called to order at about 8:15 pm by Ed Hoffmann. The attendance was about 35 people.

New Members

The following members have joined OVAUG in April:

Mark A. Kelly, Shane M. Kuntz, and Marcel van Nimwegen.

Welcome to OVAUG!

OFFICER REPORTS

-VICE PRESIDENT (Drew Vogel) No report.

-SECRETARY (Troy Cooksey) As of this meeting we have 130 paid members. Membership dues are \$15 for a single membership and \$20 for a family membership. (If you need to pay dues or wish to join, see me at the meetings or call 961-6354 for more information). If you have something for sale or trade, then please give me a written description of the item along with your name and phone number, or you can send it to the club's post office box. Your ad will appear in three issues of the newsletter or, more or less issues, if you let me know that you need more time or that the item has sold. Also note that we have 12 for 10 Fred Fish disk copy cards available for \$15 for members and \$30 for non members.

-LIBRARIAN (Scott Bennett) The Fred Fish library is currently up to FF850, the CD ROM is up to FF800, the BBS has up to FF750 compressed, and there are six club disks and two disks of mod files this month. (Note: a variety of books and video tapes are now available for borrowing by club members in good standing. Scott has sign up sheets for those interested).

-TREASURER (George Gibeau) The treasury balance is currently \$290.

-TECHNICAL ADVISOR (Brick Eksten) The DPS real time animation board is now available. It allows real time 24 bit output to be recorded directly to videotape and real time video to be dumped to a hard drive. It retails for \$1999 and the hard drive is \$1000. Real 3D is now shipping and the new Toaster software will be available next month.

-NEWSLETTER (Jeff Johnson) Jeff thanked all of the contributors to last month's issue of the newsletter. Jeff requests that if you have anything; articles, tips, bios on interesting members, etc, then please send them in. Note it does not have to be a full blown article. Anyone published in the newsletter will receive one free Fred Fish copy. Submissions can be made to the club P.O. box, to the club BBS, or to Jeff at the meetings. Also if you would like to see an article on a particular topic then let Jeff know and he will try to find someone to write on it.

-BBS ADVISOR (George Gibeau) George reported that due to a large number of BBS crashes, we may be changing the software to Remote Access. This software should be more stable and will also allow us to subscribe to Fidonet. The club's BBS phone number is 241-8817.

SIG REPORTS

-BEGINNER'S SIG (Ed Hoffmann) Ed demoed the Workbench and general operations. Next month the SIG will cover more on the Workbench and the Shell. Ed welcomes any suggestions for meeting topics. Meetings are held in Room 502 Rieveschl Hall at 6:30 pm prior to the monthly OVAUG meeting.

-C SIG (Mark Peters) Mark reported that there was no meeting last month. C SIG discussions are taking place on the OVAUG BBS and monthly meetings are held at Mark's house, 3027 Eden Ave., on the third Thursday of every month. Call Mark at 961-6925 for more information.

-MULTI MEDIA SIG (Dan Sternklar) No report. Meetings are held at Dan's house, 3325 Bishop St. in Clifton, on the 1st Tuesday of every month (call Dan @ 281-3278 for more info).

-GRAPHICS SIG (Bob Leibold) The Graphics SIG is currently putting together Truman Toland's documentary on the Graphics SIG and OVAUG. The next meeting has not been announced, however, upcoming dates will be posted on the OVAUG BBS. This SIG is in conjunction with Cincinnati Community Video. It will focus on developing computer graphics and video which will be aired on Warner Cable Public Access.

Training and access to CCV equipment will be provided for SIG participants. Contact Bob Leibold at 651-4171 for more details.

-AREXX SIG (Richard Hertzberg) There has been little activity on the BBS. AREXX discussions are taking place on the BBS.

-3D Graphics SIG (Brick Eksten) There will be a new SIG starting in May which will focus on 3D animation, graphics, and hardware. The SIG will be headed by Brick Eksten and will take place at Expert Services on the first Tuesday of every month. Call Brick at 371-9690 for more details.

OLD BUSINESS

-Anyone interested in participating in Computer Fest in August should contact Ed Hoffman (see phone number elsewhere).

NEW BUSINESS & DISCUSSION

-Note, Dan Dyke reported there will be no more CG fonts available from him.

-Eugene Saylor brought up a discussion to get Amiga magazines in local public libraries. It was decided that Eugene would draft a letter that we could send to the libraries requesting that they subscribe to several of these magazines.

DEMONSTRATIONS

-Drew Vogel showed us Splatman, an animation in progress created by himself, Paul Weyner, and Phil Horney. The animation features a cycleman character running across a checker board landscape and falling through a hole. The animation was created with the DCTV and Imagine. Drew also showed Paul's Old Man painting, which was featured in the April edition of the newsletter.

-Ed Hoffman demoed a European game Trolls, which is the first game to utilize one of the new AGA modes. In the game, your troll has to go around several screens and rescue baby trolls.

-Ed Stoehr showed more animations by himself and Andrea Stoehr. These include a poesy flower zoom, a lava like explosion, and a piece of paper morphing into an airplane and flying around a room. All were created with Playmation.

-Ed Hoffman demoed two of his new Caligari animations. One showed a globe being orbited by the word animation and the other showed the logo from the Card animation bouncing through space and a spaceship collides into it.

-Dan Williams showed some animations he had done with his recently acquired Draw 4D Pro. These included several geometric shapes with album covers mapped on them.

-A videotape of the Discovery Channel's Invention program was shown which featured a segment on the Video Toaster and it's creators, New Tek.

-Scott Bennett previewed this month's club disks. The disks include several workbench games, a mosaic number game, a Tetris like game, and a Mines game. They also include a personal calendar / phone book program, a dashboard performance program, Iconify, which iconifies a window, Menufy, which puts a window up in a menu, and Screen Blanker, which is similar to After Dark on Windows.

\$\$\$ FOR SALE OR TRADE \$\$\$

—Amiga 2000, XT-Bridgeboard, 2 40 Meg hard drives, 1084 monitor, Frame Grabber digitizer, 4 Meg RAM, ton-o-software, midi 5-way box, RGB out video box, 2 3 1/2" and 1 5 1/4" floppy drives...\$???...offered by Michael (821-3913).

QUESTIONS????...Then contact one of your OVAUG officers!

-President.....Ed Hoffmann.....521-3424

-Vice-president.....Drew Vogel.....581-7002

-Secretary.....Troy Cooksey.....661-0908

-Treasurer.....George Gibeau.....721-1214

-Newsletter Editor.....Jeff Johnson.....651-1199

-Technical Advisor.....Brick Eksten.....371-9690

-Club Librarian.....Scott Bennett.....371-2603

-BBS Officer.....George Gibeau.....721-1214

-BBS Phone Number (8N1).....241-8817

CLUB DISKS FOR APRIL

These are compiled for the Club by our Librarian, Scott Bennett. They are unique and a special benefit of Club membership. Copies are available for \$1.50 per, plus disk, at Expert, at the regular meeting, and on the BBS.

April93_1

ar105.lha	Amiga Report Online Magazine
ar106.lha	Amiga Report online magazine
aworld.lha	Gives information on different countries
calc100.lzh	Programmer calculator
catalog2.lzh	Disk cataloger
CheatGuide.lzh	Amigaguide game cheat
dboard17.lha	Machine performance monitor
diskcat_v1.2.lha	Disk Cataloger
findhit1.lha	File finder
pgs3.txt.lha	Info about PageStream 3.0
5-min_news_mar93.lzh	News from Genie
abtoolsv101_pch.txt	Text about AmiBack Tools Patch to 1.01
abtools_pch101.lha	Patch AmiBack Tools to 1.01
abtools_pch102.lha	Patch AmiBack Tools to 1.02
aepitch.lha	Patch for ArtExpression 1.03 -> 1.04
alarmingclock2.5.lha	WB clock with alarm
aps0493.lha	Amiga Press Sentinel
ar103.lha	Amiga Report OnLine Mag
ar104.lha	Amiga Report OnLine Mag

April93_2

hack2.1.lha	Uses arexx to put gadgets on screen
hmpro127m.lzh	Home manager prog
huntwin24.lha	Search through list of windows
makeanim1.6.lzh	Animation builder
toastercon.lha	Text about new Toaster
dfa.lha	Phone book program
DPaint-Patch.lha	Patch dpaint 4.5 -> 4.6
dred0014.lha	Optimize copying to several floppies
emplant_review.lha	Review of mac emulator
flexicheckv1.lzh	Checkbook program
GeneRexxT.LHA	AREXX generator

April93_3

sdark15c.lha	Afterdark Type screenblanker
startrekfonts.lha	CG fonts
toasted.txt	Text about new Toaster
unsit_v1.5.lha	Uncompress mac files
viewpics.rexx	Views pics randomly with arexx and viewtek
Waco.lha	Tastless Waco Tx jokes
woc_conference.lzh	Text on World of Commodore
lx100.lha	Fast decompressor
menufy_1.0.lha	Puts windows in the menu
mostra109.lha	View program
msip.lha	XOper type system monitor
netutils.lha	Parnet sernet utilities

ontheball.lha
prtdplx101.lha
psgrind.lha
qdisk_10.lha
qfile.lha
scale.lha

Calender, appointment program
Print on both sides of paper
Postscript version of pretty printer
Displays disk usage
Address book
Magnifying program

April93_4
multiplayer 131.lha
vchk6p25.lzh
viewport_april93.lzh
wbgames16.lha
wbicons.lha
toonmsg.lha
yak14.lha
bbdev14c.lha
devtools1.lha

Mod music player
Virus Checker
Online mag
Neat workbench games
Nice Icons
Sample of bugs bunny and daffy
Yet another commodity ver 1.4
BaudBandit serial device replacement
Developer tools for creating screen

April93_MODS1
millennium.lha
emotions.lha
idoit4u.lha
ilikechopin.lha
intuitracker.lha

Mod music file
Mod music file
Mod music file
Mod music file
Mod music player

April93_MODS2
overload.lha
scallop.lha
newmods.lha
night_city.lha

Mod music file
Mod music file
Mod music files
Mod music file

Compatibility and File Formats

Ed Hoffmann

In the microcomputer industry, much hype is made of compatibility and file formats; claims are made that one machine is compatible with another, or different versions of software are compatible with another, or that a program can read or write different file formats. What do they really mean?

Let's start with the AmigaDOS 2.0 + compatible statement. This means that this program will run on a machine running AmigaDOS 2.0 or higher. However, this doesn't mean that the software takes advantage of the advanced features of 2.x or 3.x, only that it will run. For instance, it may not have 2.0 + style gadgets, or read the screen modes that are possible on the machine running the software, or use standard requesters. Correspondingly, something that is 3.0 + compatible may not take advantage of the AGA graphics modes.

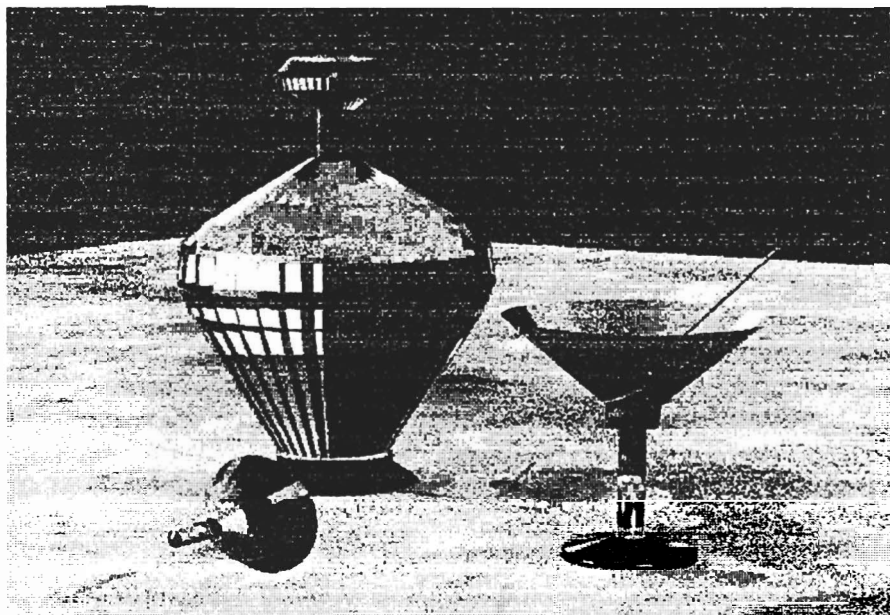
How about MS-DOS compatible? In the MS-DOS world, this means that the computer will run MS-DOS software, although there may be restrictions on the version of MS-DOS required, or screen modes (CGA, EGA, VGA,

SVGA, etc.). In the Amiga world, this statement can be ambiguous. For instance, Cross-DOS (now part of AmigaDOS 2.1+) allows formatting a diskette in a standard Amiga floppy drive as a 720kb MS-DOS formatted disk. This is transparent to the user and provides the ability to read and write files to a MS-DOS formatted floppy. But this does not mean that you can run software for MS-DOS machines on your Amiga (although the companion to Cross-DOS, called Cross-PC and available separately from Consultron, will allow this). Then what good is it? Let me tell you.

Related to compatibility is standard file formats. The Amiga has been rather unique in that there are a set of more or less standard file formats for graphics, animations, music, etc. The most popular is the IFF format for pictures and sounds. If one program writes an IFF file, another can read it and use it directly (such as creating a picture in Deluxe Paint and using it in an AmigaVision script). There are many other "standard" file formats for other platforms, too, and even a few standards across platforms. For instance, Windows use the ".bmp" (for bit mapped) format for graphics files. A more basic standard format across most every platform is the ASCII encoded file. ASCII, or American Standard Code for Information Interchange, is a way of writing text and symbols in a binary format. For most users, ASCII files are synonymous with text files, since most text is stored as ASCII formatted files. So what if I write an ASCII file to an Amiga disk on an Amiga? Can't anyone read it on any machine with a 3.5" drive? Well, no, since there is another level of compatibility in the way, the file system format. This is what is meant by an Amiga-formatted disk, or an MS-DOS - formatted disk. However, remember Cross-DOS? If you install Cross-DOS, then the Amiga will recognize the disk as either an Amiga or MS-DOS disk, and read it accordingly. Since I am writing this on an MS-DOS machine at work, I can save it as an ASCII file (or text file, no formatting), bring it home, put it in my Amiga, and read it into a text editor or word processor on the Amiga. In fact, when I am done, I will upload this article to the BBS (running on an MS-DOS machine) where it will be stored as ASCII again on an MS-DOS formatted hard disk. Jeff Johnson will download it to an Amiga, and insert it as ASCII into Professional Page. Notice that the file system used (Amiga, MS-DOS, etc.) is irrelevant when transmitting by modem.

Here's another example. Since The Art Department Professional (ADPro) can write .bmp files, I can load an Amiga graphic I created, insert an MS-DOS - formatted disk, and instruct ADPro to save to the disk in .bmp format. Then, I can take this to work and load it into my MS-DOS machine and use it as Windows wallpaper. I can even load it into a Macintosh, since most newer Macs read MS-DOS and Macintosh formatted disks.

In summary, there are three levels of compatibility most Amiga users encounter: whether the file system is compatible (i.e., an Amiga or MS-DOS formatted disk), whether the file format is compatible (i.e., ASCII, IFF, .bmp, etc), and whether the program runs on that particular machine (i.e., AmigaDOS 2.0+ required, MS-DOS, or Cray Y-MP).



This IMAGINE rendering titled "Martini" was created by Larry Kolberg. He was happy to achieve a faceted glass look on the decanter and it's stopper. There is an olive in the glass, which is distorted by the refraction of the glass, however it requires viewing on a monitor to see clearly. Larry is a member of the new 3D SIG. There are folks of every experience level attending. It is headed by Brick Eksten. Work toward snazzy 3D images for ComputerFest are planned. Every member is encouraged to participate!

COMMODORE AND NEWTEK JOIN TO MARKET AMIGA 4000 AND NEW VIDEO TOASTER 4000

(West Chester, PA --- April 18, 1993) Commodore Business Machines, Inc. is pleased to announce it is participating in a joint marketing effort with NewTek, Inc. built on bringing powerful, cost effective technology to the video marketplace. The vast acceptance of Commodore's Amiga (R) computer and NewTek's Video Toaster TM as quality video products is unprecedented. The newly formed alliance coupled with NewTek's announcement of the Video Toaster 4000 will encourage further widespread acceptance of the Amiga and Toaster within the rapidly growing personal video production industry.

The Video Toaster 4000 hardware includes a real-time effects engine and two 16.8 million color broadcast-quality frame buffers. Also included is an advanced character generator, four input switcher, a broadcast-quality paint program, color effects, a 3D modeling and animation program, and a luminance keyer.

The following was posted on the BBS:

From: George Gibeau
To: All
Subject: Amiga 4000 Toaster

We now have a demo version of the A4000 Toaster along with the new software on display down at Expert Services. We hope to have it at the meeting. If you want to see some "cool" (to use Kiki's own word) stuff, stop on by and I will personally give you a demo. George

USING THE PARSE INSTRUCTION

by Jeff Johnson

Arexx is disarming in its apparent similarity to Basic. However, the syntax is rather different resulting in obfuscation. One such confusing instruction in ARExx is "PARSE".

To parse means to "resolve into component parts and describe those parts". It is usually meant in the context of sentence structure.

When used in Arexx the confusion results, at least to the author, from the format of the instruction and its following arguments as they appear on the program line. There are no consistent delineators used to separate the various arguments.

The most basic format is: `PARSE InputSource OutputTemplate`

The InputSource can be a number of different things, and the OutputTemplate can be a number of variables. InputSource determines what string is to be chopped into component parts, and OutputTemplate specifies at what point the chopping is to take place and where the pieces are to go.

InputSource -- Is a string or strings and can be specified to be one of the following:

ARG Retrieves the argument strings supplied

EXTERNAL see **PULL**

NUMERIC This IS NOT !! an inputted number, but a string describing the current mathematical mode.

PULL Retrieves a string from the "console". Use this when you want input from the user.

SOURCE This is a string describing the program running, its path, and other parameters. It is NOT !! any kind of "source" other than the program name and where it came from.

VALUE expression **WITH** The expression is evaluated and becomes the string. The words "VALUE" and "WITH" are in this case delimiters separating the expression.

VAR variable The current value of the variable(s) specified are used as the source string.

VERSION The string becomes the version of ARExx in use and other parameters.

The most used and useful of these are **VAR**, **ARG**, **PULL**, and **VALUE**.

The most confusing term used is "parsing by tokenization". A "token" as used in ARExx is simply a "word" in another language. They are the smallest distinct entities in ARExx. They may be comments, symbols (variables), strings, operators, and special characters (colons and parentheses, etc.).] So parsing by tokenization is simply chopping up into words.

The OutputTemplate(s) -- After the Input Source is specified, the resulting string is ready to be dissected into the results according to the OutputTemplate.

Like input, the output can be accomplished through various means; in this case as specified by the template.

The OutputTemplate is also called the "target". Remember, what we are doing is chopping a string into smaller parts. The smaller parts are stored in variables which are named in the OutputTemplate. What makes the whole thing tricky is not what is going on, but the syntax of the **PARSE** command does not clearly differentiate between the input and output portions. It is quite clearly defined as far as REXX is concerned, but the person reading the code has to look and consider carefully just what is what.

The most commonly encountered form is simply a series of variables with spaces between them. Using the PARSE VAR version of the command:

PARSE VAR variable_name FIRST SECOND THIRD

In this case the InputSource is a variable supplied to the command. The OutputTemplate is the three variable names FIRST SECOND THIRD. If there are three words in a string supplied as the InputSource variable, each of those three words will show up in the variables "FIRST", "SECOND", and "THIRD" in their respective order. This is "Parsing by tokenization", or merely chopping into words. If fewer than three words exist, then SECOND or THIRD will be empty. If more, then THIRD will contain the rest.

Try it:

```
/* PARSE VAR TEST */
variable_name = "One Two Three"
PARSE VAR variable_name FIRST SECOND THIRD
SAY FIRST
SAY SECOND
SAY THIRD
```

Another version of the command is PARSE PULL. This will supply the command with a line from the console. In the example, the line from the console will end up in the variable "LINE".

PARSE PULL LINE

Try it:

```
/* PARSE PULL TEST */
SAY "ENTER SOMETHING"
PARSE PULL LINE
SAY LINE
```

PARSE ARG will use the argument string supplied to the command. The output template's variables will contain the argument divided up accordingly.

Try it:

```
/* PARSE ARG TEST */
SAY "ENTER SOMETHING AS AN ARGUMENT"
PARSE PULL LINE
CALL PRINT_THE_ARGUMENT(LINE)
EXIT

PRINT_THE_ARGUMENT:
PARSE ARG ARGUMENT
SAY "YOUR ARGUMENT IS " ARGUMENT
```

PARSE VALUE will evaluate an expression and parse it into the target variables specified by the OutputTemplate.

PARSE VALUE < expression> WITH FIRST SECOND THIRD

The keyword WITH simply delineates the end of the expression.

Try it:

```
/* PARSE VALUE TEST */
SAY "ENTER SOMETHING AS AN ARGUMENT"
PARSE PULL LINE
CALL PRINT_THE_SUBSTRING(LINE)
EXIT
```

PRINT THE SUBSTRING:
PARSE VAR LINE
PARSE VALUE substr(LINE,2,2) WITH SUBSTRING
SAY "THE SECOND AND THIRD CHARACTERS OF YOUR ENTRY
ARE " SUBSTRING

There are, of course, many additional permutations and combinations of the PARSE command. Of the three books on the subject, the best is the ABACUS publication Using AREXX on the Amiga. It is a true tutorial and explains REXX carefully and understandably. The accompanying disk (get it), is immensely useful. The second best book is the "bible", Wm. Hawe's AREXX User's Reference Manual. NOTE: The error messages start at page 103!!! Thirdly, Merrill Callaway's The AREXX Cookbook is really just that. You have to be darned thoroughly familiar with REXX to start with, then it is useful. I learned about the PARSE command with the program "ParseTest2.rexx", but it was a trial by nesclence. Go through the ABACUS book first.

Guess what's in OS/2 now? Why, REXX! Oh quick, a clone!!

BUILDING ANIMATIONS ON THE AMIGA

Ed Hoffmann

One of the most powerful features of all Amiga computers is the graphic coprocessor chips that allow for high-speed graphic displays with virtually no processing load on the CPU. This allows for a very responsive graphical user interface, or GUI, without taxing the CPU. While other platforms provide for a GUI (such as the Macintosh), all the work is done by the CPU, resulting in sluggish response on all but the fastest models.

Another capability of these graphics coprocessors (the Agnus chips in pre-AGA models, and the Alice chips in AGA machines) is to present high speed animation, again without significant processor work load. This capability has made the Amiga an excellent game machine (especially for flight simulators, which was Jay Miner's hidden purpose for the Amiga when he designed it). In addition, it has allowed the development of desktop animation and video to flourish on the Amiga, beginning with the original Juggler demo (and the even more original Robo City animation).

Most Amiga users are first exposed to animation on the Amiga with Deluxe Paint. Deluxe Paint allows for the creation of an animation by compiling a series of stills, resulting in a single animation file in the "anim" format. These stills must be IFF files in Amiga native display resolutions. The anim format was developed by Aegis Development in the early history of the Amiga, and it provides a method of compressing the information in a series of stills into a single, relatively small file that will play back in real time (limited by processor capability). The anim format performs what's called delta frame compression, where only the difference (delta) between consecutive frames is saved, not the whole frame. For example, if a ball is moving across a complex background graphic, only those locations where the ball is located exhibits changes (i.e., covering up the background graphic) from frame to frame, while the background is essentially the same in every frame. Therefore, when saving in the anim format, the file only contains information describing those pixel locations where the ball is moving. Of course, the entire first frame must be saved or the changes from the first to second frame can't be computed. The larger the changes from frame to frame, the larger the delta files, and the slower the animation may play back.

The maximum playback speed of the animation is controlled by the CPU, bus speed, and memory characteristics of the machine playing the animation, as well as the spatial and color resolution of the anim and the amount of changes from frame to frame. For example, for low-resolution animations with little motion frame rates up to and above 30 frames per second are possible, even on a stock Amiga 500. For comparison, video runs at 30 frames per second (actually 29.97 fps), while film plays back at 24 fps. Note that smooth motion typically requires a minimum of 15 fps. The AGA machines have a higher capability (termed bandwidth, or total amount of information processed in a given amount of time) by virtue of the new coprocessor chips.

The most basic method to create an anim is to manually load each frame, in the proper order, in Deluxe Paint under the "Anim" pulldown. This is time consuming, given to human error, and subjects you to an "undocumented feature" in Deluxe Paint: all the frames of the anim will have the same palette, defined by the first frame in your animation, although the anim format does not prohibit a different palette for any or all frames. If you have generated a series of stills (in IFF format) in a 3D program such as Imagine and didn't lock the palette, your animation will look like a mess when compiled with a constant palette in Deluxe Paint. Another limitation is that the version of Deluxe Paint you are using may restrict your color resolution. For instance, only Deluxe Paint IV AGA will allow you to compile stills in 256 or HAM8 resolutions.

Another method to compile an anim file is to use dedicated anim builders, such as the public domain programs AnimBuild or MakeAnim (in the club's Fred Fish Public Domain library). By selecting the names of the files, these programs build anims automatically, removing the tedium and most of the possibility of human error. The AnimBuild program is part of a collection of anim tools, called CryoUtils, which work with all native Amiga display IFF files. These tools provide for no processing on the input files; they build an anim directly from the source frames. They do allow for changes to the palette, however, unlike Deluxe Paint.

For more sophisticated applications, anim processors can be employed. These include Rend24 (shareware), The Animation Station (by PP&S, although getting hard to find), ImageFX (by GVP) and Art Department Professional (or, ADPro, by ASDG). These programs allow for file format conversions, color dithering, scaling of files, image processing, and other more elaborate techniques. Using AREXX with ADPro or ImageFX, you can process stills from virtually any source (including 24 bit files and JPEG, MAC, or MSDOS format), using any of the powerful image operators, and compile the animations automatically. The only limitation is that the final still to be compiled must still be a native Amiga format. However, using the HAM8 format (262,144 colors) on AGA machines provides for color resolution virtually indistinguishable from 24 bit files. Considering that currently the only way to animate 24 bit files is through a single frame recorder or DPS's new Personal Animation Controller (both expensive), this capability of the AGA Amigas is unprecedented.

The anim format itself has evolved over the years. The most widely used is what's termed the ANIM5 format. However, with the advent of the AGA machines, two new formats have been introduced, ANIM7 and ANIM8, both of which are compatible with 256 color or HAM8 files. The difference between these formats is the type of compression algorithm used in computing the delta frames. The user must only be aware what format is being used to write the anim, and then use the proper display program to view the anim. For example, Rend24 and ADPro both write ANIM8 format anim files, while there are some special ANIM7 anim builders. Both ANIM7 and ANIM8 format anims are viewable by ViewTek (shareware; see club library listings), a animation and still file viewer that supports AGA modes.

As a side note, DCTV display files can be compiled with any of the above methods.

This is because the Amiga recognizes DCTV display files as hi resolution 8 or 16 color images (depending on whether you are using the 3 or 4 bitplane DCTV modes). This provides a cheap and effective way to generate full color NTSC animations with a pre-AGA Amiga, which can be directly recorded to videotape from the DCTV composite output by any VCR. This allows the home user to record good quality animations to tape quite effectively, even with a pre-AGA machine.

The power to conceive, create, and record animations on the Amiga is overwhelming, with many choices and possibilities. There are many technical aspects to creating animations, up to and including comprehensive 3D graphics programs, and complicated and expensive video gear. But it's also as easy as firing up Deluxe Paint and letting your imagination roam.

THE GURU SPEAKS

(From the editor: This is an edited composite of messages the Club's tech advisor, Brick Eksten, posted on the BBS.)

As I look into my crystal ball I see.....

» The Amiga game console. AGA graphics, no ports other than joystick ports, a cartridge port, 2 megs of chip ram.... Selling for \$399.00 US....

» 10 new significant games out by the end of summer. 20 or more by Christmas maybe more, maybe less, but great graphics all around.

90% of all games come from Europe. The European programmers just got brand new machines 6 months ago. Since the average game development cycle is about 8 months, we are lucky to have seen anything so far. These programmers are fighting a new machine, with no documentation because they are too stubborn to follow the rules (EGO, EGO, EGO). So they are learning the machine from the inside out. They have the knowledge that Commodore has to keep things backwards compatible so they know that any new tricks are extensions of the old, an extra bit here, an extra value there. To track them all down and make sense out of them, they are out of their minds.....but they will figure it out. They will overcome the obstacles. They will come out with GREAT games, it will just take some time.

We have a low end machine that cost the same as a 500 did 2 years ago. A machine that has 8 times the graphics processing power, 5 times the CPU processing power, an installed base nearing a quarter million by the end of fall. A pretty good market to write games for... A great machine, lots of people to buy games, a platform that has at its minimum a 32 bit processing and custom chip environment, in all a pretty cool place to hang out.

We will have to wait and see what happens. Psygnosis, Ocean, Sega, and others have all committed contracts to the games console (yes there WILL be a game console), I hear that Tengen and others are fighting for position as well. All the games written for the console will be compatible with the normal 1200. If you have any doubts that there will be games galore this Christmas, toss them out with Mondays trash. Chances are, this time next year we will be worrying about how we can afford some more cool games.

For those of you interested here are the specs of the Picasso II.

Autoconfig Zorro II board (a2000,3000,4000)

1 MByte display memory

Blitter on board capable of 35 megabyte/second area fills.

Hardware cursor (pointer)

Autoswitch one monitor solution

Runs on all 680x0 machines

Chip memory for screen bitmaps not required

24 bit truecolor, 16 bit, and 8 bit packed pixel and planar modes.

Resolutions:

640x480 72 hz
800x600 81 hz
1024x768 78 hz
1120x832 73 hz
1152x900 68 hz
1280x1024 87 hz interlaced

Color depths:

2 through 16 bit planar modes
256 colors out of 256 thousand colors up to 1152x900 resolution
65000 colors up to 800x600
16.7 million colors up to 640x480

Other features:

Faster scrolling and screen refresh than an A4000 (4 times faster)
Amiga runs faster because it never has to wait for the custom chips to redraw the screen.
Higher refresh rates than the amiga (up to 90 hz vs. 60hz for AGA)
CHEAP (suggested retail should be around \$449.00)
Works with all programs that allow you to select a screen mode.

(From the editor: Brick has written a program he has named REXXQuestor. (sung to the theme from Goldfinger...(GOLD... fin... GER....REXX... quest... OR)

From: Brick Eksten

Subject: REXXQuestor

The interface for REXX is written in assembler, or at least that part of it that is available publicly, the REXX implementations I have seen for other languages are usually peeks and pokes from basic. Absolute offsets etc. Really ugly. Olaf Barthel (the guy who wrote term) decided to create a REXXhost.library that provides very simple REXX messaging hooks, like, getrexmessage, sendrexmessage, etc. Its very easy to use and I recommend it to anyone incorporating rexx in their programs. I found it much easier to use than SimpleREXX from Commodore.

REXX is only accessible through C so the program is a C program. (its accessible through other high level languages out there, but I don't know of any other high level languages 8)). It will not work under 1.2/1.3 as the ASL libraries are not available. My program just uses the functionality of the REXXHost.library.

> REXXQuestor, the REXX port with a file requestor attached.

> REXXQuestor requires REXXHost.Library V 37.1 or better.

> REXXQuestor is an easy way to add a standard amiga dos file requestor to your scripts and AREXX programs. It supports all the standard ASL file requestor functions like, pattern matching, titles, dir and file modes, and multiple file selection.

> REXXQuestor is available on the OVAUG BBS.

EDITOR'S END

The next meeting shall prove to be really something. All of our members who rarely attend will want to make this one! Brick, our technical advisor, expects to demo Digital Processing Systems' real time video board. This board was described in last month's newsletter (April, 1993, p.11). Additionally, Brick will demo the "Picasso" board described in Brick's "GURU" column in this month's newsletter.

From: Ed Hoffmann

Be sure to put a note in the newsletter that anyone who hasn't received their s'ware from C= from a PowerUp deal (A1200 or A4000 purchase through May 2), then call C= at (215) 431-9100 and ask for Mary Berry. She will check to make sure they are on the list. Thx -Ed

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